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**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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C9/436,219 11/09/99 NAGAE

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OLIFF & BERRIDGE PLC  
P O BOX 19928  
ALEXANDRIA VA 22320

EXAMINER

BURCH, M

ART UNIT

PAPER NUMBER

3613

DATE MAILED:

11/09/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/436,219

Applicant(s)

NAGAE ET AL.

Examiner

Melody M. Burch

Art Unit

3613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 November 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - On pg. 2-3 starting at line 23 of pg. 2 the use of claim format and language is improper;
  - On pg. 4 line 13 "dumping" should be changed to --damping--;
  - On pg. 8 line 20 and throughout the remaining pages the angle should be clearly written as  $\theta$ ;
  - On pg. 11 line 3 there should be a space between "0dl" and "is"Appropriate correction is required.

### ***Claim Objections***

2. Claims 1, 4, and 5 objected to because of the following informalities: the word -- the-- should follow "to" and come before "change" in lines 5, 2, and 2, respectively.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to

make and/or use the invention. The way of obtaining the roll rate is not described. The disclosure of the use of a roll rate sensor is insufficient.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "target acceleration" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claims 2, 3, and 5 recite the limitation "lateral acceleration" in line 2. There is insufficient antecedent basis for this limitation in these claims.

Claim 4 recites the limitation "steering angle" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi et al. in view of Japanese Harada et al. (JP 10-278762) (corresponding to U.S. Harada et al. 6081761 throughout the office action for column and line numbers). Kawaguchi et al. disclose a control device of a vehicle having a vehicle body, wheels, a

steering system, and a brake system, the device comprising: a means for providing a first parameter quantity of a variable amount of the vehicle body disclosed in col. 6 lines 16-18, a means for providing a second parameter quantity of a change rate of a variable amount of a vehicle body disclosed in col. 5 lines 27-28, and a means for controlling the brake system such that a target deceleration occurs when the first parameter quantity exceeds a threshold value and increases according to an increase of the second parameter quantity disclosed in col. 1 lines 50-57, but does not disclose that the variable amount is particular to rolling conditions. Harada et al. teach in the last three lines of the abstract the use of a control device employing automatic deceleration that can be used to provide both spin and over-roll control. It would have been obvious to one of ordinary skill in the art to have modified the variable amount of the control device of Kawaguchi et al. to be a rolling amount, in view of the teachings of Harada et al., in order to provide a controlled means of preventing vehicle over-rolling.

Re: claim 2. See col. 6 lines 5-12 and the formula in col. 6 line 16.  $G_y$  or lateral acceleration is a function of  $V_{yd}$  which is a function of  $\beta d$ , therefore, the first parameter quantity is substantially proportional to the lateral acceleration.

9. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiffmann '974 in view of Kawaguchi et al. Schiffmann '974 discloses an over-rolling control device of a vehicle having a vehicle body, wheels, a steering system, and a brake system, the device comprising: a means for providing a first parameter quantity of a rolling amount of the vehicle body disclosed in col. 4 lines 65-66, a means for providing a second parameter quantity of a change rate of a rolling amount of a vehicle

body disclosed in col. 3 lines 51-53, a means for deploying selected safety device(s) once a prediction of a rollover condition is obtained in col. 12 lines 45-48, but does not specifically disclose that the selected safety device(s) deployed include those of a brake system or deceleration mechanism. Kawaguchi et al. teach in col. 1 lines 50-57 the deployment of a deceleration mechanism in which the brake system is controlled such that a target deceleration occurs when the first parameter quantity exceeds a threshold value and increases according to an increase of the second parameter. It would have been obvious to one of ordinary skill in the art to have modified the over-roll control device of Schiffmann '974 to deploy a deceleration mechanism, as taught by Kawaguchi et al., in order to prevent an actual over-roll event.

Re: claim 6. Schiffman '974 teaches in the lines 7-10 of the abstract the use of a first phase or current roll angle obtained through integration of roll angle rate and a second phase or future roll angle rate.

**10.** Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi et al. in view of Japanese Harada et al. (JP 10-278762) as applied to claim 1 above, and further in view of Ikemoto et al. Kawaguchi et al., as modified, describe the invention substantially as set forth above, but do not include the limitation of the second parameter being substantially proportional to the change rate a steering angle. Ikemoto et al. teach in col. 3 lines 28 the use of the rate of change of the steering angle in the control of vehicle over-roll. Harada et al. teach in col. 9 lines 30-32 that yaw rate is computed on the basis of steering angle. It would have been obvious to one of ordinary skill in the art to have constructed the control device of Kawaguchi et al. such that the

second parameter was substantially proportional to the change rate of steering angle, as taught by Ikemoto et al. and Harada et al., in order to provide a threshold for promoting increased deceleration.

***Allowable Subject Matter***

11. Claims 3 and 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents: Monzaki, 5727853; Wielenga, 6065558; and Halasz, 5890084; show similar inventions.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Oberleitner can be reached on 703-308-2569. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

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14. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb  
November 6, 2000

  
11-6-2000  
MATTHEW C. GRAHAM  
PRIMARY EXAMINER  
GROUP 310